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EXAMINER

COMPTON, ERIC B

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 04/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/490,259

Applicant(s)
Ragland et al

Examiner
Eric Compton

Art Unit
3726



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Dec 7, 2001

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-53 is/are pending in the application.

4a) Of the above, claim(s) 10-15, 23-27, and 37-45 is/are withdrawn from consideration.

5) ☒ Claim(s) 1-9 and 16-22 is/are allowed.

6) ☒ Claim(s) 28-36 and 46-53 is/are rejected.

7) ☐ Claim(s) is/are objected to.

8) ☐ Claims are subject to restriction and/or election requirements.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 8, 10

20) ☐ Other:

Art Unit: 3726

DETAILED ACTION

Election/Restriction

1. Applicant's election with traverse of Group I in Paper No. 9 is acknowledged. The traversal is on the ground(s) that the product and method are various aspects of the same invention. This is not found persuasive because the product need not be formed by the process. The Examiner previously made this showing in the original restriction requirement.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 10-15, 23-27, 37-41, and 42-45 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 28-29, 32-35, 50, and 51, are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,800,905 to Sheridan et al in view of US Patent 2,411,075 to Wyrick.

Art Unit: 3726

Sheridan et al disclose a method of forming a multilayered foil product by providing a continuous stack of metal foil layer (see Figure 10). However, they do not disclose forming a z-folded pack of the continuous stack of metal foil layers.

Wyrick discloses a method for producing a multilayer stack comprising: combining a plurality of continuous sheet material layers (6) to form an advancing continuous stack (E) of layers; scoring or creasing the advancing stack across a portion of the width of the stack at predetermined intervals; causing the continuous stack to fold in alternating directions at the scored or creases; and piling the alternatively folding stack in a zigzag fashion to form a z-fold pack (15) of the continuous stack of layers. See Figure 1 for more details. In this method the continuous layers are disclosed to be paper.

Regarding claim 28, it would have been obvious to one of ordinary skill in the art, at the time of invention, to have formed the multilayer metal foil stack of Sheridan et al by performing the method of Wyrick using metal foil, since these materials are all sheet materials and all have similar properties with respect to material handling as paper (e.g. folding, conveying, stacking), and therefore they can be also be automatically stacked in a multilayered fashion.

Regarding claims 29, and 33-35, Wyrick discloses a crease mechanism (I) which imparts a pattern to all layers of the stack. This can be considered an embossing process.

Regarding claim 32, the layers are all flat materials.

Art Unit: 3726

Regarding claim 50, as shown in Figure 1 of Wyrick the creasing member (I) included two conveyor means (81,82) having creasing projections means (male/female) to form the creases. It is inherent that the projections engage each other to form the crease.

Regarding claim 51, it is inherent that the creasing means of Wyrick are periodically rotated to form the stack.

5. Claims 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheridan et al/Wyrick as applied to claim 28 above, and further in view of DE 198 03 837 ('837).

Sheridan et al/Wyrick disclose the invention above. However, they does not explicitly disclose scoring using rotating members having male and female positions nor periodically rotating the members.

DE '387, Figure 2a, 2b shows folding a multi-layer foil using rotating members (10,10') having male and female positions.

Regarding claim 50, it would have been obvious to one of ordinary skill in the art, at the time of invention, to have performed the method of Sheridan et al/Wyrick using by rotating creasing members, in light of the teaching of DE '387, in order to provide high speed stacking (see Derwent English Abstract).

Regarding claim 51, it is inherent that the creasing means of DE '387 are periodically rotated to form the stack.

Art Unit: 3726

6. Claims 30-31 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheridan et al/Wyrick as applied to claim 28 above, and further in view of Applicants' Admitted Prior Art (AAPA).

Wyrick discloses the invention above. However, he does not disclose providing a previously patterned metal foil layer.

AAPA, as found on pages 1-2 and 10, paragraph 1 of the specification, discloses a variety of multilayer metal foil products that comprise metal foils having foil/fiber layers having various patterns.

Regarding claims 30-31 and 36, it would have been obvious to one of ordinary skill in the art, at the time of invention, to have performed the method of Wyrick using metal foil having a pattern thereon, in light of the teaching of AAPA, in order to form conventional continuous multilayer metal foil products.

7. Claims 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent US Patent 5,800,905 to Sheridan et al in view of US Patent 1,489,833 to Keller.

Sheridan et al disclose a method of forming a multilayered foil product by providing a continuous stack of metal foil layer (see Figure 10). However, they do not disclose forming a product from a z-folded pack of the continuous stack of metal foil layers.

Keller discloses a method for forming books (Q) comprising: feeding to a parts forming operation a continuous stack of sheet material layers from a z-fold pack (J) of continuous

Art Unit: 3726

multilayer stack; and forming and cutting (K,I) individual multilayer parts (Q) from the stack. See Figure 3 for more details.

Regarding claim 46, it would have been obvious to one of ordinary skill in the art, at the time of invention, to have formed the multilayer metal foil stack of Sheridan et al by performing the method of Keller using metal foil, since these materials are all sheet materials and all have similar properties with respect to material handling as paper (e.g. folding, conveying, stacking), and therefore products can automatically formed from the stack.

Regarding claim 47-48, Official Notice is taken that books include text which may be typed. A typing process can be considered an embossing process.

Regarding claim 49, paper can be considered a fiber layer.

8. Claims 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheridan et al/Keller as applied to claim 46 above, and further in view US Patent 4,218,962 to Cunningham et al.

Sheridan et al/Keller disclose the invention above. However, they does not disclose horizontal or non-vertical folding.

Cunningham et al disclose horizontal and non-vertical folding, as shown in Figure 8.

Regarding claims 52-53, it would have been obvious to one of ordinary skill in the art, at the time of invention, to have performed the method of Sheridan et al/Keller by performing horizontal or non-vertical folding, in light of the teachings of Cunningham et al, in order to form stacks having a horizontal orientation such that they do not stand as tall as a vertical stack.

Art Unit: 3726

Allowable Subject Matter

9. Claims 1-9 and 16-22 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or suggest a method of forming a multilayer metal foil product; comprising providing a continuous stack of metal foil layer, separating the layers, recombining the layers, and forming and cutting individual products, in combination with the other claimed subject matter. Based on the specification a stack is disclosed to comprise z-folds (or zigzags) as shown in reference numeral (23) in Figure 1.

Response to Arguments

11. Applicant's arguments filed February 6, 2002, have been fully considered but they are not persuasive.

Applicant argues that Wyrick does not disclose scoring or creasing that alternates in a left to right direction. This is clearly not the case. Furthermore, Applicants arguments seem to suggest a confusion between the creasing means (I) and a slack producing mechanism (J,17). In any event, as shown in Figure 1 of Wyrick the creasing member (I) included two conveyor means (81,82) having creasing projections means (male/female) to form the creases. Therefore, the creasing will alternate in a left to right directions. With regards to imparting a pattern on all layer, it is inherent that a crease penetrates all layer.

Art Unit: 3726

With regards to Keller, this reference was cited to show a teachings of using a folded sheet for a production run. The fact that Keller describes using multiple trucks of sheets does not detract from this teaching. The other references cited disclosed the structure and methods for folding a metal foil layered product. Also a stack is a convenient means to store sheet-like material.

The newly added claims have been addressed above.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3726


Contact Information

13. Official documents related to the instant application may be submitted to the Technology Center 3700 mail center by facsimile at (703) 872-9302 (responses before final) and (703) 872-9303 (responses after final). Should Applicant desire to submit a DRAFT response to the Examiner by facsimile transmission, then Applicant should contact the Examiner at the number below for instructions concerning the transmission of DRAFT documents. Applicant is reminded to clearly mark any facsimile transmission as "DRAFT" if it is not to be considered as an official response.

14. Any inquiry concerning this communication should be directed to Examiner Eric Compton at telephone number (703) 305-0240.

ebc

March 27, 2002


S. THOMAS HUGHES
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700